

**REMARKS**

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1, 6-8, 13-15, 18-20, and 23-34 are pending. Claims 1, 8, 15, and 20 are amended, and claims 25-34 are added. Claims 1, 8, 15, and 20 are independent. The Examiner is respectfully requested to reconsider the rejections in the Office Action in view of the amendments and remarks set forth herein.

**Rejection Under 35 U.S.C. § 112, first paragraph**

Claims 1, 6-8, 13-15, 18-20, 23, and 24 stand rejected under 35 U.S.C. § 112, first paragraph. This rejection is respectfully traversed.

In order to overcome this rejection, Applicants have amended claims 1, 8, 15, and 20 to delete the phrases

“the air vents being substantially equal in size to each other”, the

“the second sections of the wave plates extending outwardly such that a wave height of the wave plates remains substantially constant”, and

the word “uninterrupted” before planar surfaces, and

the word “uninterrupted” before passages.

Applicants respectfully submit that the claims, as amended, are fully supported by and adequately described in the written description of the invention. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

**Objection to the Claims**

Claim 20 is amended to correct to informality pointed out by the Examiner.

**Rejection Under 35 U.S.C. §103(a)**

Claims 1, 6-8, 13-15, 18-20, 23, and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Whittenberger et al (U.S. 5,651,906) in view of Kohno et al. (U.S. 5,653,825), Arai et al. (U.S. 5,151,254), either Bullock et al. (U.S. 4,810,588) or Hitachi et al. (U.S. 5,177,960), and either or Toyoda et al. (U.S. 5,336,472) or Maus (U.S. 4,713,361).

Claims 1, 6-8, 13-15, 18-20, 23, and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Honma (U.S. 5,323,608) in view of Kohno et al. (U.S. 5,653,825), Arai et al. (U.S. 5,151,254), either Bullock et al. (U.S. 4,810,588) or Hitachi et al. (U.S. 5,177,960), and either or Toyoda et al. (U.S. 5,336,472) or Maus (U.S. 4,713,361).

These rejections are respectfully traversed.

**Amendments to Independent Claims 1 and 8**

While not conceding the appropriateness of the rejections, but merely to advance the prosecution of the present application, each of independent claims 1 and 8 is amended herein to recite combinations of elements directed to a metal carrier for a catalyst, including:

the case is composed of ferritic stainless steel including Mo and phosphorous.

Full support for ferritic stainless steel including Mo and phosphorous can be found in Table 1, page 4 of the specification.

The Applicants respectfully submit that none of the references cited by the Examiner teaches or suggests, ferritic stainless steel including Mo and phosphorous, including Whittenberger et al., Honma, Kohno et al., Arai et al., Bullock et al., Hitachi et al., Toyoda et al., and Maus.

In particular, Kohno et al. (see column 2) fails to mention phosphorous, as set forth in claims 1 and 8.

Therefore independent claims 1 and 8 are in condition for allowance

**Amendments to Independent Claim 15**

In addition, independent claim 15 is amended herein to recite combinations of elements directed to a metal carrier for a catalyst, including:

when the metal carrier is subjected to a heating temperature of 1000° for 20 hours, an oxidation increase is less than 2 wt %.

Support for when the metal carrier is subjected to a heating temperature of 1000° for 20 hours, an oxidation increase is less than 2 wt %, can be found on page 4 of the specification, and seen in FIG. 3.

Each of the references cited by the Examiner is silent about when the metal carrier is subjected to a heating temperature of 1000° for 20 hours, an oxidation increase is less than 2 wt %.

Therefore, independent claim 15 is in condition for allowance

**Amendments to Independent Claim 20**

Further, independent claim 20 is amended herein to recite combinations of elements directed to a metal carrier for a catalyst, including:

when the metal carrier is subjected to a moisture added atmosphere comprising 90 vol % of a mixture gas and a 10 vol % of water, and to a heating temperature of 950° for 20 hours, an

oxidation increase is less than 1 wt%.

Support for when the metal carrier is subjected to a moisture added atmosphere comprising 90 vol % of a mixture gas and a 10 vol % of water, and to a heating temperature of 950° for 20 hours, an oxidation increase is less than 1 wt%, can be found on page 5 of the specification. See also FIG. 4.

Each of the references cited by the Examiner is silent about when the metal carrier is subjected to a moisture added atmosphere comprising 90 vol % of a mixture gas and a 10 vol % of water, and to a heating temperature of 950° for 20 hours, an oxidation increase is less than 1 wt%.

Therefore, independent claim 20 is in condition for allowance

The Examiner will note that dependent claims 25-34 are added herein to recite additional novel features of the present invention. See pages 3-5 of the specification and Figs. 3-4 for support.

In view of above described amendments and arguments, it is respectfully submitted that the cited references, taken alone or in combination, fail to teach or suggest the novel combination of elements of the present invention. Accordingly, the rejection under 35 U.S.C. §103(a) has been overcome, and independent claims 1, 8, 15, and 20, as amended herein, as well as the claims depending therefrom, are believed to be in condition for allowance.

**CONCLUSION**

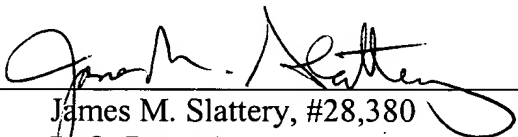
All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Carl T. Thomsen (Reg. No. 50,786) at (703) 205-8000.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

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